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PATENT
Attorney Docket No.: 02307V-139100US
Client Reference No.: B03-091

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450



On

March 12, 2004

TOWNSEND and TOWNSEND and CREW LLP

By:

Mark T. Davis

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Haichao LIU, et al.

Application No.: 10/633,299

Filed: September 15, 2003

For: PROCESS AND CATALYSTS FOR
THE OXIDATION OF METHANOL
AND/OR ETHANOL

Examiner: Not Yet Assigned

Art Unit: 1621

INFORMATION DISCLOSURE
STATEMENT UNDER 37 CFR §1.97 and
§1.98

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

The references cited on attached form PTO/SB/08A and PTO/SB/08B are being called to the attention of the Examiner. Copies of the references are enclosed. It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

As provided for by 37 CFR 1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

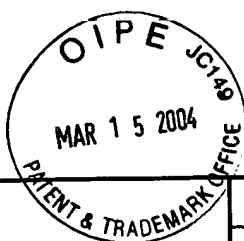
Applicant believes that no fee is required for submission of this statement.

However, if a fee is required, the Commissioner is authorized to deduct such fee from the undersigned's Deposit Account No. 20-1430. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,

Joel G. Ackerman
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60162307 v1



PTO/SB/08A (08-03)

Substitute for form 1449A/PTO			Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)			Application Number	10/633,299
			Filing Date	September 15, 2003
			First Named Inventor	Liu, Haichao
			Art Unit	1621
			Examiner Name	Not Yet Assigned
Sheet	1	of	Attorney Docket Number	02307V-139100US

U.S. PATENT DOCUMENTS+					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number Kind Code ² (if known)			
	AA	US-4,149,009	04-10-1979	Yoneoka et al.	
	AB	US-4,216,339	08-05-1980	Couteau et al.	
	AC	US-4,232,171	11-04-1980	Yoneoka et al.	
	AD	US-4,319,037	03-09-1982	Yoneoka	
	AE	US-4,480,122	10-30-1984	Horlenko et al.	
	AF	US-4,613,411	09-23-1986	Hsu et al.	
	AG	US-4,778,923	10-18-1988	Aplin et al.	
	AH	US-4,994,603	02-19-1991	Mueller et al.	
	AI	US-5,026,904	06-25-1991	Lodge et al.	
	AJ	US-5,144,062	09-01-1992	Chen et al.	
	AK	US-5,194,675	03-16-1993	Joerg et al.	
	AL	US-5,223,102	06-29-1993	Fedkiw, Jr. et al.	
	AM	US-5,399,745	03-21-1995	Yoneoka et al.	
	AN	US-5,401,873	03-28-1995	Zehner et al.	
	AO	US-5,770,761	06-23-1998	Lin et al.	
	AP	US-5,840,971	11-24-1998	Gubelmann-Bonneau	
	AQ	US-5,917,085	06-29-1999	Lippert et al.	
	AR	US-6,008,399	12-28-1999	Chang et al.	
	AS	US-6,015,875	01-18-2000	Smith, Jr. et al.	
	AT	US-6,232,490 B1	05-15-2001	Patois et al.	
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	AV	6,399,812 B1	06-04-2002	Yan et al.	
	AW	6,447,745 B1	09-10-2002	Feeley et al.	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Country Code ³	Number ⁴ Kind Code ² (if known)			
						T ⁶

Examiner Signature		Date Considered	
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60162307 v1

Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)			Complete if Known		
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			Art Unit	1621	
			Examiner Name	Not Yet Assigned	
Sheet	2	of		Attorney Docket Number	02307V-139100US

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	AX	AI, Mamoru; "The Production of Methyl Formate by the Vapor-Phase Oxidation of Methanol"; <u>Journal of Catalysis</u> 1982, Vol. 77, pp. 279-288.	
	AY	HASAN, Masihul et al.; "Oxidation of primary alcohols to aldehydes with oxygen catalysed by tetra-n-propylammonium perruthenate"; <u>Journal of Molecular Catalysis</u> 2002, Vol. 180, pp. 77-84.	
	AZ	JI, Hong-Bing et al.; "Environmentally friendly alcohol oxidation using heterogeneous catalyst in the presence of air at room temperature"; <u>Catalysis Communications</u> 2002, Vol. 3, pp. 511-517.	
	BA	KAKIUCHI, Nobuyuki et al.; "Pd(II)-Hydrotalcite-Catalyzed Oxidation of Alcohols to Aldehydes and Ketones Using Atmospheric Pressure of Air"; <u>J. Org. Chem.</u> 2001, Vol. 66, pp. 6620-6625.	
	BB	LIU, Haichao et al.; "Synthesis of methylformate, dimethoxymethane, formaldehyde, and their mixtures via selective oxidation of methanol on RuO ₄ -based catalysts"; <u>Department of Chemical Engineering, University of California at Berkeley</u> .	
	BC	LOUIS, Catherine et al.; "Catalytic Properties of Silica-Supported Molybdenum Catalysts in Methanol Oxidation: The Influence of Molybdenum Dispersion"; <u>Journal of Catalysis</u> 1998, Vol. 109, pp. 354-366.	
	BD	MALLAT, T. et al.; "Oxidation of alcohols with molecular oxygen on platinum metal catalysts in aqueous solutions"; <u>Catalysis Today</u> 1994, Vol. 19, pp. 247-284.	
	BE	MATSUMOTO, Masakatsu et al.; "Oxidation of Allylic Alcohols to Unsaturated Carbonyl Compounds by Ruthenium Dioxide and Dioxigen/Ruthenium Dioxide"; <u>J. Org. Chem.</u> 1984, Vol. 49, pp. 3435-3436.	
	BF	MATSUSHITA, Tsuyoshi et al.; "Highly efficient oxidation of alcohols and aromatic compounds catalysed by the Ru-Co-Al hydrotalcite in the presence of molecular oxygen"; <u>Chem. Commun.</u> 1999, pp. 265-266.	
	BG	MUSAWIR, Mehdi et al.; "Highly efficient liquid-phase oxidation of primary alcohols to aldehydes with oxygen catalysed by Ru-Co oxide"; <u>Chem. Commun.</u> 2003, pp. 1414-1415.	
	BH	POULSTON, S. et al.; "Aerobic Oxidation of Alcohols with Palladium-Hydrotalcite"; <u>Platinum Metals Rev.</u> 2002, Vol. 46, No. 1, pp. 26.	
	BI	STUCHINSKAYA, Tatiana L. et al.; "Liquid-phase oxidation of alcohols with oxygen catalysed by modified palladium(II) oxide"; <u>Catalysis Communications</u> 2003, Vol. 4, pp. 417-422.	
	BJ	TRONCONI, Enrico et al.; "Methyl Formate from Methanol Oxidation over Coprecipitated V-Ti-O Catalysts"; <u>Ind. Eng. Chem. Res.</u> 1987, Vol. 26, pp. 1269-1275.	
	BK	VALENTE, N. Graciela et al.; "Structure and activity of Sn-Mo-O catalysts: partial oxidation of methanol"; <u>Applied Catalysis</u> 2001, Vol. 205, pp. 201-214.	
	BL	YAMAGUCHI, Kazuya et al.; "Creation of a Monomeric Ru Species on the Surface of Hydroxyapatite as an Efficient Heterogeneous Catalyst for Aerobic Alcohol Oxidation"; <u>J. Am. Chem. Soc.</u> 2000, Vol. 122, pp. 7144-7145.	
	BM	YAMAGUCHI, Kazuya et al.; "Supported Ruthenium Catalyst for the Heterogeneous Oxidation of Alcohols with Molecular Oxygen"; <u>Angew. Chem. Int. Ed.</u> 2002, Vol. 41, No. 23, pp. 4538-4542.	

Examiner Signature		Date Considered	
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NON PATENT LITERATURE DOCUMENTS			
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	BN	YAMAGUCHI, Kazuya et al.; "Efficient Heterogeneous Aerobic Oxidation of Amines by a Supported Ruthenium Catalyst"; <u>Angew. Chem. Int. Ed.</u> 2003, Vol. 42, pp. 1480-1483.	
	BO	ZHAN, Bi-Zeng et al.; "Zeolite-Confined Nano-RuO ₂ : A Green, Selective, and Efficient Catalyst for Aerobic Alcohol Oxidation"; <u>J. Am. Chem. Soc.</u> 2003, Vol. 125, pp. 2195-2199.	

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